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DOCKET NO.: D0617.70012US00

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant:

Sato et al.

Serial No.:

10/661,156

Confirmation No.:

6772

Filed:

September 11, 2003

For:

KDR AND VEGF/KDR BINDING PEPTIDES AND THEIR USE

IN DIAGNOSIS AND THERAPY

Examiner:

Anand U. Desai

Art Unit:

1653

CERTIFICATE OF MAILING UNDER 37 C.F.R. §1.8(a)

The undersigned hereby certifies that this document is being placed in the United States mail with first-class postage attached, addressed to MAIL STOP AMENDMENT, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on the 27th day of January, 2006.

Emily E. Zakauska

MAIL STOP AMENDMENT

Commissioner For Patents P.O. Box 1450 Alexandria, VA 22313-1450

Sir:

Transmitted herewith are the following documents:

- Information Disclosure Statement
- PTO Form 1449 with cited references
- Return Receipt Postcard

If the enclosed papers are considered incomplete, the Mail Room and/or the Application Branch is respectfully requested to contact the undersigned at (617) 646-8000, Boston, Massachusetts.

A check is not enclosed. If a fee is required, the Commissioner is hereby authorized to charge Deposit Account No. 23/2825. A duplicate of this sheet is enclosed.

Respectfully submitted,

By:

Michael T. Siekman, Reg. No.: 36,276

Wolf, Greenfield & Sacks, P.C.

600 Atlantic Avenue

Boston, Massachusetts 02210-2206

Telephone: (617) 646-8000

Docket No.: D0617.70012US00

Date: January 12006

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Emily E. Zukauskas

MAIL STOP AMENDMENT

Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

STATEMENT FILED PURSUANT TO THE DUTY OF DISCLOSURE UNDER 37 CFR §§1.56, 1.97 AND 1.98

Sir:

Pursuant to the duty of disclosure under 37 C.F.R. §§1.56, 1.97 and 1.98, the Applicant requests consideration of this Information Disclosure Statement.

PART I: Compliance with 37 C.F.R. §1.97

This Information Disclosure Statement has been filed before the mailing of a first Office action on the merits in the above-identified case.

No fee or certification is required.

Serial No.: 10/661,156 -2 - Art Unit: 1653

Conf. No.: 6772

PART II: Information Cited

The Applicant hereby makes of record in the above-identified application the information listed on the attached form PTO-1449 (modified PTO/SB/08). The order of presentation of the references should not be construed as an indication of the importance of the references.

The Applicant hereby makes the following additional information of record in the above-identified application.

PART III: Remarks

Documents cited anywhere in the Information Disclosure Statement are enclosed unless otherwise indicated. It is respectfully requested that:

- 1. The Examiner consider completely the cited information, along with any other information, in reaching a determination concerning the patentability of the present claims;
- 2. The enclosed form PTO-1449 (modified PTO/SB/08) be signed by the Examiner to evidence that the cited information has been fully considered by the Patent and Trademark Office during the examination of this application;
- 3. The citations for the information be printed on any patent which issues from this application.

By submitting this Information Disclosure Statement, the Applicant makes no representation that a search has been performed, of the extent of any search performed, or that more relevant information does not exist.

By submitting this Information Disclosure Statement, the Applicant makes no representation that the information cited in the Statement is, or is considered to be, material to patentability as defined in 37 C.F.R. §1.56(b).

By submitting this Information Disclosure Statement, the Applicant makes no representation that the information cited in the Statement is, or is considered to be, in fact, prior art as defined by 35 U.S.C. §102.

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Conf. No.: 6772

Notwithstanding any statements by the Applicant, the Examiner is urged to form his or her own conclusion regarding the relevance of the cited information.

An early and favorable action is hereby requested.

Respectfully submitted,

By:

Michael T. Siekman, Reg. No. 36,276

Wolf, Greenfield & Sacks, P.C.

600 Atlantic Avenue

Boston, Massachusetts 02210-2206

Telephone: (617) 646-8000

Docket No.: D0617.70012US00

Date: January 2006

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FORM PTO-1449/A and B (modified PTO/SB/08)	APPLICATION NO.: 10/661,156	ATTY. DOCKET NO.: D0617.70012US00
INFORMATION DISCLOSURE	FILING DATE: September 11, 2003	CONFIRMATION NO.: 6772
STATEMENT BY APPLICANT	APPLICANT: Sato et al.	JAN 3 1 2006
Sheet 1 of 4	GROUP ART UNIT: 1653	EXAMINER: Anand U. Dani

U.S. PATENT DOCUMENTS

Examiner's	Cite	U.S. Patent Document		Name of Patentee or Applicant of Cited	Date of Publication or Issue	
Initials #	No.	Number Kind Code		Document	of Cited Document MM-DD-YYYY	
	A1	5,766,860		Terman, B. et al.	06-16-1998	
	A2	5,769,080		Matthijs, O. et al.	06-23-1998	
	A3	5,773,024		Unger, E. et al.	02-30-1998	
	A4	5,855,866		Thorpe, P. et al.	01-05-1999	
	A5	5,861,301		Terman, B. et al.	09-03-1992	
	A6	5,935,820		Hu, J. et al.	08-10-1999	
	A7	6,051,230		Thorpe, P. et al.	04-18-2000	
	A8	6,071,495		Unger, E. et al.	06-06-2000	
•	A9	6,146,657		Unger, E. et al.	11-14-2000	
	A10	6,204,011		Kendall, R. et al.	03-20-2001	
•	A11	6,221,839		Alitalo, K. et al.	04-24-2001	
	A12	6,245,530		Alitalo, K. et al.	06-12-2001	
	A13	6,261,535		Thorpe, P. et al.	07-17-2001	
	A14	6,261,537		Klaveness, J. et al.	07-17-2001	
	A15	6,264,917		Klaveness, J. et al.	07-24-2001	
	A16	6,322,770		Rajopadhye, M. et al.	11-27-2001	
	A17	6,331,289		Klaveness, J. et al.	12-18-2001	
·	A18	6,359,115		Kendall, R. et al.	03-19-2002	
	A19	6,361,946		Alitalo, K. et al.	08-06-1998	
	A20	6,403,088		Alitalo, K. et al.	06-11-2002	
	A21	6,451,764		Lee, J. et al.	09-17-2002	
	A22	6,521,211		Unger, E. et al.	02-18-2003	
	A23	6,576,608		Lee, J. et al.	06-10-2003	
	A24	6,645,933		Alitalo, K. et al.	11-11-2003	
	A25	6,689,352		Achen, M. et al.	02-10-2004	
	A26	2001-0031485		Backer, M. et al.	10-18-2001	
	A27	2001-0038842		Achen, M. et al.	11-08-2001	
	A28	2002-0001566	A1	Rajopadhye, M. et al.	01-03-2002	
	A29	2002-0015680	A1	Harris, T.	02-07-2002	
	A30	2002-0065218		Achen, M. et al.	05-30-2002	
	A31	2002-0068697		Tournaire, R. et al.	06-06-2002	
	A32	2002-0086013		King, G.	07-04-2002	
	A33	2002-0091082		Aiello, L.	07-11-2002	

EXAMINER:	DATE CONSIDERED:

[#] EXAMINER: Initial if reference considered, whether or notcitation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.

FORM PTO-1449/A and B (modified PTO/SB/08) INFORMATION DISCLOSURE APPLICATION NO.: 10/661,156 ATTY. DOCKET NO.: FILING DATE: September 11, 2003 CONFIRMATION NO.:		
FILING DATE: September 11, 2003 CONFIRMATION NO.:	CKET NO.: D0617.70012US00	
	6772	
STATEMENT BY APPLICANT APPLICANT: Sato et al.		
Sheet 2 of 4 GROUP ART UNIT: 1653 EXAMINER: Anan	d U. Desai	
A34 2002-0098187 A1 Ferrara, N. et al. 07-25-20	02	
A35 2002-0102260 Achen, M. et al. 08-01-20	02	
A36 2003-0023046 Ferrara, N. et al. 01-30-20	03	
A37 2003-0055006 Siemeister, G. et al. 03-20-20	03	
A38 2002-0058619 Tchistiakova, L. et al. 05-16-20	02	
A39 2003-0082103 Wartchow, C. et al. 05-01-20		
A40 2003-0091567 Alitalo, K. et al. 05-15-20		
A41 2003-0166523 Achen, M. et al. 09-04-20		
	09-18-2003	
	11-27-2001	
A44 2004-0033949 Bunting, S. et al. 02-19-20	04	
FOREIGN PATENT DOCUMENTS		
Foreign Patent Document Date		
Examiner's Cite No. Office/ Number Code Name of Patentee or Applicant of Cited Publication Cited Document Cited Document Cited Document MM-DD-	cument (Y/N)	
B1 EP 0 536 350 B1 American Cyanamid Company 08-07-20	02	
B2 EP 0 666 868 B1 Genentech, Inc. 04-03-20	02	
B3 EP 0 848 755 B1 Genentech, Inc. 06-11-20	03	
B4 EP 1 068 224 B1 Bristol-Myers Squibb Pharma Company 05-11-20	05	
B5 EP 1 238 986 A2 Genentech, Inc. 09-11-20	02	
B6 EP 1 166 798 A1 Schering Aktiengesellschaft 01-02-20	02	
B7 EP 1 166 799 A1 Schering Aktiengesellschaft 01-02-20	02	
B8 WO 94/10202 A1 Genentech, Inc. 05-11-19	94	
B9 WO 96/40285 A1 Imarx Pharmaceutical Corp. 12-19-19	96	
B10 WO 97/17442 A1 Immunex Corporation 05-15-19	97	
B11 WO 98/18498 A2 Nycomed Imaging AS 05-07-19	98	
B12 WO 98/18501 A2 Nycomed Imaging AS 05-07-19	98	
B13 WO 98/47541 A1 Nycomed Imaging AS 10-29-19	98	
B14 WO 99/29861 A1 Children's Medical Center Corporation 06-07-19	99	
B15 WO 99/40947 A2 Resolution Pharmaceuticals Inc. 08-19-19	99	
	99	
B16 WO 99/58162 A2 Du Pont Pharmaceuticals Company 11-18-19		
B16 WO 99/58162 A2 Du Pont Pharmaceuticals Company 11-18-19 B17 WO 00/27414 A2 Basf Aktiengesellschaft 05-18-20	00	
B17 WO 00/27414 A2 Basf Aktiengesellschaft 05-18-20	00	
B17 WO 00/27414 A2 Basf Aktiengesellschaft 05-18-20 B18 WO 00/45856 A2 Imarx Pharmaceutical Corp. 08-10-20	00	
B17 WO 00/27414 A2 Basf Aktiengesellschaft 05-18-20 B18 WO 00/45856 A2 Imarx Pharmaceutical Corp. 08-10-20 B19 WO 01/42284 A2 Metris Therapeutics Limited 06-14-20	00 01 01	

EXAMINER:	DATE CONSIDERED:

[#] EXAMINER: Initial if reference considered, whether or notcitation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.

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			FILING	DATE: September 11, 2003	CONFIRMA	TION NO.: 6772		
			CLOSURE PLICANT	APPLIC	ANT: Sato et al.			
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Sheet	3	of	4	GROUP	ART UNIT: 1653	EXAMINER	: Anand U. De	sai
			-					
	B22	WO	01/64235	Al	Ludwig Institute for Cancer Re	esearch	09-07-2001	
	B23	WO	01/70268	A1	Glaxo Group Limited	<u>.</u>	09-27-2001	
	B24	WO	01/70945	A1	Sibtech, Inc.		09-27-2001	
· ·	B25	WO	01/82870	A2	Ludwig Institute for Cancer Re	esearch	11-08-2001	
	B26	WO	01/83693	A2	Glaxo Group Limited		11-08-2001	
	B27	WO	01/91805	A2	Bracco Research USA		12-06-2001	
· · · ·	B28	WO	01/97850	A2	Schering Aktiengesellschaft		12-27-2001	
	B29	WO	02/07747	A1	Joslin Diabetes Center	·	01-31-2002	
	B30	WO	02/028895	A2	Commissariat a l'energie atom	ique	04-11-2002	Y-Abstract
	B31	WO	02/057299	A2	Ludwig Institute for Cancer Re	esearch	07-25-2002	
	B32	WO	02/060950	A2	Ludwig Institute for Cancer Re	esearch	08-08-2002	
•	B33	WO	02/083849	A2	Human Genome Sciences, Inc.		10-24-2002	
	B34	WO	03/028643	A2	Targesome, Inc.		04-10-2003	
	B35	WO	03/074005	A2	Dyax Corp.		09-12-2003	
•	B36	WO	03/094617	A2	Genentech, Inc.	<u>-</u>	11-20-2003	
	,				N PATENT LITERATURE DOCU			
Examiner's Initials #	Cite No				Translation (Y/N)			
	C1 ·	BIKFALVI et al., Interaction of vasculotropin/vascular endothelial cell growth factor with human umbilical vein endothelial cells: binding, internalization, degradation, and biological effects. J Cell Physiol 149: 50-59, 1991.						
·	C2	FAIRBROTHER et al., Novel peptides selected to bind vascular endothelial growth factor target the receptor-binding site. Biochemistry 37(51): 17754-17764, 1998.						
	C3	FUKUMURA et al., Tumor induction of VEGF promoter activity in stromal cells. Cell 94: 715-725, 1998.						
	C4	HANAHAN et al., Patterns and emerging mechanisms of the angiogenic switch during tumorigenesis. Cell 86: 353-364, 1996.						
	C5	duration.	Bioconjug Cher	n 11: 439-4				
	C6	KIM et a growth in	l., Inhibition of vivo. Nature 36	vascular en 52: 841-84	dothelial growth factor-induced a 4, 1993.			
	C7	MELKKO et al., Encoded self-assembling chemical libraries. Nat Biotechnol. 2004 May;22(5):568-74.						

EXAMINER:	DATE CONSIDERED:

PEPPER et al., Angiogenesis: a paradigm for balanced extracellular proteolysis during cell

migration and morphogenesis. Enzyme Protein. 1996;49(1-3):138-62.

RISAU et al., Mechanisms of angiogenesis. Nature 386: 671-674, 1997.

NEUFELD G et al., Vascular endothelial growth factor (VEGF) and its receptors. FASEB J 13: 9-

C8

C9

C10

22, 1999.

[#] EXAMINER: Initial if reference considered, whether or notcitation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.

FORM PTO-	1449/A and B	(modified)	PTO/SB/08)	APPLICATION NO.: 10/661,156	ATTY. DOCKET NO.: D0617.70012US00
FORM PTO-1449/A and B (modified PTO/SB/08) INFORMATION DISCLOSURE			,	FILING DATE: September 11, 200	O3 CONFIRMATION NO.: 6772
STATEMENT BY APPLICANT		APPLICANT: Sato et al.			
Sheet	4	of	4	GROUP ART UNIT: 1653	EXAMINER: Anand U. Desai

C11	SCHAFFER et al., Assembly of high-affinity insulin receptor agonists and antagonists from peptide building blocks. Proc Natl Acad Sci U S A. 2003 Apr 15;100(8):4435-9.
C12	STRAWN et al., Flk-1 as a target for tumor growth inhibition. Cancer Res 56: 3540-3545, 1996.
C13	THOMAS et al., A peptide sequence on carcinoembryonic antigen binds to a 80kD protein on Kupffer cells. Biochem Biophys Res Commun 188: 671-677, 1992.
C14	VEIKKOLA et al., Regulation of angiogenesis via vascular endothelial growth factor receptors. Cancer Res 60: 203-212, 2000.
C15	MATSUDAIRA et al., Sequence from picomole quantities of proteins electroblotted onto polyvinylidene difluoride membranes. J Biol Chem. 1987 Jul 25;262(21):10035-8.
C16	ROBERTS M et al., Chemistry for peptide and protein PEGylation. Adv Drug Deliv Rev. 2002 Jun 17;54(4):459-76.
C17	SLEEP et al., Saccharomyces cerevisiae strains that overexpress heterologous proteins. Biotechnology (N Y). 1991 Feb;9(2):183-7.

^{*}a copy of this reference is not provided as it was previously cited by or submitted to the office in a prior application, Serial No. __, filed __, and relied upon for an earlier filing date under 35 U.S.C. 120 (continuation, continuation-in-part, and divisional applications).

[NOTE – No copies of U.S. patents, published U.S. patent applications, or pending, unpublished patent applications stored in the USPTO's Image File Wrapper (IFW) system, are included. See 37 CFR §1.98 and 12870G163. Copies of all other patent(s), publication(s), unpublished, pending U.S. patent applications, or other information listed are provided as required by 37 CFR §1.98 unless 1) such copies were provided in an IDS in an earlier application that complies with 37 CFR §1.98, and 2) the earlier application is relied upon for an earlier filing date under 35 U.S.C. §120.]

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